

Appl. No. 09/851,264
Reply to Office Action of September 8, 2005

REMARKS/ARGUMENTS

Entry of the foregoing and further consideration of the subject application in light of the remarks that follow and consistent with 37 C.F.R. 1.114 are respectfully requested.

REJECTION UNDER 35 USC 103

Claims 34 and 36-42 stand rejected under 35 U.S.C. § 103 as being unpatentable over U. S. Patent 5,396,009 ("Verduijn-1") in view of U. S. Patent 5,064,630 ("Verduijn-2"). This rejection is specifically traversed as the invention, as set forth in Claims 34 and 36-42, is submitted to be patentable over the two Verduijn patents.

The Office Action correctly states that Verduijn-1 does not disclose gallium catalyst and teaches that aluminum can be substituted by gallium (see Verduijn-1, col. 6, lines 7-11). Further, Verduijn-1 does not disclose or suggest making gallium-containing LTL zeolite with the dimensions specified in the Applicants' presently pending Claims 34 and 36-42. Instead, Verduijn-1 discloses processes for preparing aluminosilicate zeolite L of the disclosed dimensions by inclusion in the synthesis mixture of a divalent cation such as barium or magnesium. It is the presence of the cation, which allows one to produce an aluminosilicate zeolite having small and uniform dimensions.

Applicants have demonstrated in comparative Example C on pages 28-30 of the present application, a process for preparing a gallosilicate analogous to the processes of Verduijn 1, in which magnesium cation is present in the synthesis mixture. As shown in comparative Example C, the resulting gallium-containing zeolite has a diameter ranging between 1.5 and 3 microns and a length ranging between 0.7 to 1.0 microns, well outside the parameters of the zeolite claimed in the presently pending claims. Examples 9 and 10 of the present application which utilize the same basic synthesis mixture, but without the divalent cation and instead use colloidal seeds to produce a gallosilicate zeolite having dimensions within those recited in the instant claims. For this reason, one skilled in the art could not make gallium-containing LTL zeolite which has dimensions as set forth in the instant claims by following the teachings of Verduijn-1. Gallium-

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containing zeolites having larger average diameter and larger length are made when gallium is used for the aluminum taught by Verduijn-1. Thus, while Verduijn-1 may disclose aluminosilicate zeolite having particle dimensions within the scope of some of the instant claims, Verduijn-1 does not disclose or suggest gallosilicate zeolites having such dimensions.

The Office Action further states that Verduijn-2 discloses an aromatization process utilizing a catalyst comprising gallium L-zeolite and therefore, it would be obvious to one having ordinary skill in the art at the time of the invention was made to have modified the process of Verduijn-1 by utilizing gallium instead of aluminum as taught by Verduijn-2.

Combining the teaching of Verduijn-1 and Verduijn-2 would not result a gallosilicate zeolite having dimensions within those recited in the instant claims. Verduijn-2 does not cure the deficiencies of Verduijn-1. Verduijn-2 does not disclose or suggest gallosilicate zeolites having particle dimensions within the scope of the instant claims.

Eventhough Verduijn-2 discloses an aromatization process utilizing a catalyst comprising gallium L-zeolite and therefore, it would not be obvious to one having ordinary skill in the art at the time of the invention was made to have modified the process of Verduijn-1 by utilizing gallium instead of aluminum as taught by Verduijn-2 because as demonstrated in comparative Example C on pages 28-30 of the present application, Gallium-containing zeolites having larger average diameter and larger length are made when gallium is substituted for the aluminum taught by Verduijn-1.

Withdrawal of the rejections is respectfully requested.

Claim 40 stands rejected under 35 U.S.C. § 103 as being unpatentable over Verduijn-1 in view of Verduijn-2 and WO 91/06367 ("Verduijn-3"). This rejection is specifically traversed as the invention, as set forth in Claim 40, is submitted to be patentable over the three Verduijn references.

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The deficiencies of Verduijn-1 and Verduijn-2 have been previously discussed and further elaboration of its deficiencies is believed to be redundant, except to reiterate that the two references do not disclose or suggest a Ga-LTL zeolite having particle dimensions within the scope of the instant claims. Verduijn-3 does not cure the deficiencies of Verduijn-1 and Verduijn-2. Verduijn-3 is not concerned with making Ga-LTL zeolite with the crystal dimensions set forth in the presently pending Claims. Withdrawal of this rejection is also respectfully requested.

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CONCLUSION

It is respectfully submitted that all claims 34, 36-42 are in condition for allowance and favorable action thereon is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees that are required or credit any overpayment to Deposit Account No. 05-1712.

Respectfully submitted,

Date:

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